



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

10/647,1982

Source:

o.p.e

Date Processed by STIC:

9-3-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)

2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

3. Hand Carry directly to:

U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202

Or

U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

Raw Sequence Listing Error Summary

ERROR DETECTED **SUGGESTED CORRECTION** **SERIAL NUMBER:** _____

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 _____ **Wrapped Nucleics
Wrapped Aminos** The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 _____ **Invalid Line Length** The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 _____ **Misaligned Amino
Numbering** The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

- 4 _____ **Non-ASCII** The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 _____ **Variable Length** Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 _____ **PatentIn 2.0
"bug"** A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 7 _____ **Skipped Sequences
(OLD RULES)** Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) _____ SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 _____ **Skipped Sequences
(NEW RULES)** Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

- 9 _____ **Use of n's or Xaa's
(NEW RULES)** Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 ☒ _____ **Invalid <213>
Response** Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial-Sequence

- 11 _____ **Use of <220>** Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 _____ **PatentIn 2.0
"bug"** Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 _____ **Misuse of n** n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

AMC/MH - Biotechnology Systems Branch - 08/21/2001



OIPE

RAW SEQUENCE LISTING

DATE: 09/03/2003

PATENT APPLICATION: US/10/647,982

TIME: 10:50:42

Input Set : A:\01313.txt

Output Set: N:\CRF4\09032003\J647982.raw

3 <110> APPLICANT: Kaytes, Paul
 4 Teng, Chi-Hse
 6 <120> TITLE OF INVENTION: Single Nucleotide Polymorphisms Diagnostic for Schizophrenia
 8 <130> FILE REFERENCE: 01313.PRO1
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/647,982
C--> 10 <141> CURRENT FILING DATE: 2003-08-26
 10 <160> NUMBER OF SEQ ID NOS: 42
 12 <170> SOFTWARE: PatentIn version 3.0
 14 <210> SEQ ID NO: 1
 15 <211> LENGTH: 3080
 16 <212> TYPE: DNA
 17 <213> ORGANISM: Homo sapiens
 19 <220> FEATURE:
 20 <221> NAME/KEY: variation
 21 <222> LOCATION: (194)..(194)
 22 <223> OTHER INFORMATION: polymorphism G or A
 25 <220> FEATURE:
 26 <221> NAME/KEY: variation
 27 <222> LOCATION: (601)..(601)
 28 <223> OTHER INFORMATION: polymorphism A or G
 31 <220> FEATURE:
 32 <221> NAME/KEY: variation
 33 <222> LOCATION: (1029)..(1029)
 34 <223> OTHER INFORMATION: polymorphism A or G
 37 <220> FEATURE:
 38 <221> NAME/KEY: variation
 39 <222> LOCATION: (1038)..(1038)
 40 <223> OTHER INFORMATION: polymorphism C or G
 43 <220> FEATURE:
 44 <221> NAME/KEY: variation
 45 <222> LOCATION: (1074)..(1074)
 46 <223> OTHER INFORMATION: polymorphism A or C
 49 <220> FEATURE:
 50 <221> NAME/KEY: variation
 51 <222> LOCATION: (2106)..(2106)
 52 <223> OTHER INFORMATION: polymorphism G or A
 55 <220> FEATURE:
 56 <221> NAME/KEY: variation
 57 <222> LOCATION: (2185)..(2185)
 58 <223> OTHER INFORMATION: polymorphism G or A
 61 <220> FEATURE:
 62 <221> NAME/KEY: variation
 63 <222> LOCATION: (2359)..(2359)

7.4-5
 Does Not Comply
 Corrected Diskette Needed

RAW SEQUENCE LISTING

DATE: 09/03/2003

PATENT APPLICATION: US/10/647,982

TIME: 10:50:42

Input Set : A:\01313.txt

Output Set: N:\CRF4\09032003\J647982.raw

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64 <223> OTHER INFORMATION: polymorphism T or G
67 <220> FEATURE:
68 <221> NAME/KEY: variation
69 <222> LOCATION: (2663)..(2663)
70 <223> OTHER INFORMATION: polymorphism C or G
73 <220> FEATURE:
74 <221> NAME/KEY: variation
75 <222> LOCATION: (2796)..(2796)
76 <223> OTHER INFORMATION: polymorphism A or G
79 <400> SEQUENCE: 1
80 agtaggaatc agatagcgag attgattaat aataatactt atcactcttt ataacttgaa      60
82 aagcaagttc acaaagtgtc ctaaagtcac agccctgtac tggaaagaga gttgaaccct      120
84 tcttcaggaa gacaataata taataataac aatattttct tcactctgca gtgtctttac      180
W--> 86 attccagggt tggnaacatt actgaggatt ctcttcccat tttccagttt cctgttcatt      240
88 attcttattt ttttgactgc ttttagcatc gggagcacaa aggccagtca ccaggaattg      300
90 caaacaaatg cgtagtcaga gagagagggc tcaactgccc tttgtcatgt ggatgcagac      360
92 acattgcaga tgtgttccca gtaacaatgt cttgagaaga ggactggtct ttccaccagc      420
94 atctcagaaa tgccggtgtg tctaaacagc atgtcgttct ttaatgcttt catgcaatat      480
96 attttatcaa tctcaagttc ccctcactat gtattataat aatttctgct tgttggtaac      540
98 caatgcagat ggaaaattga ttcttaacag aagagaaaaga gccaaagtatt gatgcttact      600
100 ntttacaccc tattgtatct ttgtaacaaa aaccgggtg gctaagttat gattgggaac      660
102 aagggaatgg ttcaagtcta tgcactaagg aaaaacaaat ctttggccta aaacaataat      720
104 gataatagaa tttaatatag agtagagacc tgtttttagt aataactttc ctagtaataca      780
106 ctgttgaaaa taatcatact agttcacacc gcgcactaca gggattccat cgagggattt      840
108 tcccattgaa ggcattttatt tagctaaaag gacttcatct ttaaggcggg aatgcaggac      900
110 agataacaga gataaagata acaggagggtg atctttcagc tccataatta cattccatat      960
112 cagcgactgt tgcacagaga aactcaaaaag gtaaaaaataa aatatgaaag gatattttaa      1020
114 atcaaaaagna attttatnaa attaagagca tgagacattt atcagttgaa acantctcca      1080
116 ataactttgt gcaatataat ttttgtcaaa ttttattttg tcataaacat ttgggattta      1140
118 taataaaaaat ggaaacttga aaaattatat tagagataat atctgatcat ttctctgtgc      1200
120 atcctggtga atatgtgttt ttttcgcag gagcactgaa aatcaggaaac aatcctgtat      1260
122 tttttgtgat aatcaacaag gacaaaactt ctccatagt aaataacagc gttatgagca      1320
124 gcaattcatc cctgctggtg gctgtgcagc tgtgctacgc gaacgtgaat gggtcctgtg      1380
126 tgaaaatccc cttctcgccg ggatcccggg tgattctgta catagtgttt ggctttgggg      1440
128 ctgtgctggc tgtgtttgga aacctcctgg tgatgatttc aatcctccat ttcaagcagc      1500
130 tgcactctcc gaccaatttt ctggttgcc tcttgccctg cgctgatttc ttggtgggtg      1560
132 tgactgtgat gcccttcagc atggtcagga cgggtggagag ctgctggtat ttggggagga      1620
134 gtttttgtac tttccacacc tgctgtgatg tggcattttg ttactcttct ctctttcact      1680
136 tgtgcttcat ctccatcgac aggtacattg cggttactga cccctggtc tatectacca      1740
138 agttcacctg atctgtgtca ggaatttgca tcagcgtgtc ctggatcctg cccctcatgt      1800
140 acagcgggtg tgtgttctac acagggtgtc atgacgatgg gctggaggaa ttatctgatg      1860
142 ccctaaactg tataggaggt tgtcagaccg ttgtaaatca aaactgggtg ttgacagatt      1920
144 ttctatcctt ctttatacct acctttatta tgataattct gtatggtaac atatttcttg      1980
146 ttggctagac acaggcgaaa aagatagaaa atactggtag caagacagaa tcatcctcag      2040
148 agaggttacia agccagagtg gccaggagag agagaaaagc agctaaaacc ctgggggtca      2100
150 cagtgntagc atttatgatt tcatggttac catatagcat tgattcatta attgatgcct      2160
152 ttatgggctt tataaccctt gcctntattt atgagatttg ctgttggtgt gcttattata      2220
154 actcagccat gaatcctttg atttatgctt tattttaccc atgggttagg aaagcaataa      2280
156 aagttattgt aactggtcag gttttaaaaga acagttcagc aaccatgaat ttgttttctg      2340

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RAW SEQUENCE LISTING

DATE: 09/03/2003

PATENT APPLICATION: US/10/647,982

TIME: 10:50:42

Input Set : A:\01313.txt

Output Set: N:\CRF4\09032003\J647982.raw

```

158 aacatatata agcagttgna tagacgaagt tcaggatacc tttaaaatta ccaagcgaaa 2400
160 tgagttttta aaaatcaagt aagactatga atgaatagca aataaattgc tcttcaaagt 2460
162 aaaaacaaat caatgttttt cagtcttggt aagatgtgca ctttcctgtc ccttctgcaa 2520
164 aagtattttac ttggctaaca aatgtttaa atctatttgt taactgcttt agagctcagc 2580
166 atatcccaact ccctgcagac actttttgtc ttttaatcca ttgactcttc cctctgctct 2640
168 ggtattttttc ctaaaaatat ttntgttttt ttttttttta tttattccct ttcctctttt 2700
170 ctttacaaag ctttctactc tttcccagcc tgccaaaaat ttcatttgtg aatagccttt 2760
172 atcaaattat tggtttcttt tgctttgggt attttnccac aggagtcctt ttaggtatta 2820
174 atttaattta ttcaatcttg ggagagatct caggggtgat ggggcaattt gcaaatgaag 2880
176 acatcatctt gaccaggctg ttgtaattgt caaaccagtt actgtcattc ttgtaattat 2940
178 ttcctccccc aaagtgggaa gcagaagcca ctgtacttcc cagaatgatg ttaggatgat 3000
180 tatttggtcg ctgttcttgc tattgcacaa aactgtttta agagttggta tgaatagagc 3060
182 cctgtgttac attattcagt
185 <210> SEQ ID NO: 2
186 <211> LENGTH: 345
187 <212> TYPE: PRT
188 <213> ORGANISM: Homo sapiens
190 <220> FEATURE:
191 <221> NAME/KEY: VARIANT
192 <222> LOCATION: (265)..(265)
193 <223> OTHER INFORMATION: Polymorphic Amino Acid Val or Ile
196 <220> FEATURE:
197 <221> NAME/KEY: VARIANT
198 <222> LOCATION: (291)..(291)
199 <223> OTHER INFORMATION: Polymorphic Amino Acid Cys or Tyr
202 <400> SEQUENCE: 2
204 Met Ser Ser Asn Ser Ser Leu Leu Val Ala Val Gln Leu Cys Tyr Ala
205 1 5 10 15
207 Asn Val Asn Gly Ser Cys Val Lys Ile Pro Phe Ser Pro Gly Ser Arg
208 20 25 30
210 Val Ile Leu Tyr Ile Val Phe Gly Phe Gly Ala Val Leu Ala Val Phe
211 35 40 45
213 Gly Asn Leu Leu Val Met Ile Ser Ile Leu His Phe Lys Gln Leu His
214 50 55 60
216 Ser Pro Thr Asn Phe Leu Val Ala Ser Leu Ala Cys Ala Asp Phe Leu
217 65 70 75 80
219 Val Gly Val Thr Val Met Pro Phe Ser Met Val Arg Thr Val Glu Ser
220 85 90 95
222 Cys Trp Tyr Phe Gly Arg Ser Phe Cys Thr Phe His Thr Cys Cys Asp
223 100 105 110
225 Val Ala Phe Cys Tyr Ser Ser Leu Phe His Leu Cys Phe Ile Ser Ile
226 115 120 125
228 Asp Arg Tyr Ile Ala Val Thr Asp Pro Leu Val Tyr Pro Thr Lys Phe
229 130 135 140
231 Thr Val Ser Val Ser Gly Ile Cys Ile Ser Val Ser Trp Ile Leu Pro
232 145 150 155 160
234 Leu Met Tyr Ser Gly Ala Val Phe Tyr Thr Gly Val Tyr Asp Asp Gly
235 165 170 175
237 Leu Glu Glu Leu Ser Asp Ala Leu Asn Cys Ile Gly Gly Cys Gln Thr

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/647,982

DATE: 09/03/2003

TIME: 10:50:42

Input Set : A:\01313.txt

Output Set: N:\CRF4\09032003\J647982.raw

238 180 185 190
 240 Val Val Asn Gln Asn Trp Val Leu Thr Asp Phe Leu Ser Phe Phe Ile
 241 195 200 205
 243 Pro Thr Phe Ile Met Ile Ile Leu Tyr Gly Asn Ile Phe Leu Val Ala
 244 210 215 220
 246 Arg Arg Gln Ala Lys Lys Ile Glu Asn Thr Gly Ser Lys Thr Glu Ser
 247 225 230 235 240
 249 Ser Ser Glu Ser Tyr Lys Ala Arg Val Ala Arg Arg Glu Arg Lys Ala
 250 245 250 255
W--> 252 Ala Lys Thr Leu Gly Val Thr Val Xaa Ala Phe Met Ile Ser Trp Leu
 253 260 265 270
 255 Pro Tyr Ser Ile Asp Ser Leu Ile Asp Ala Phe Met Gly Phe Ile Thr
 256 275 280 285
 258 Pro Ala Xaa Ile Tyr Glu Ile Cys Cys Trp Cys Ala Tyr Tyr Asn Ser
 259 290 295 300
 261 Ala Met Asn Pro Leu Ile Tyr Ala Leu Phe Tyr Pro Trp Phe Arg Lys
 262 305 310 315 320
 264 Ala Ile Lys Val Ile Val Thr Gly Gln Val Leu Lys Asn Ser Ser Ala
 265 325 330 335
 267 Thr Met Asn Leu Phe Ser Glu His Ile
 268 340 345
 270 <210> SEQ ID NO: 3
 271 <211> LENGTH: 24
 272 <212> TYPE: DNA
 273 <213> ORGANISM: synthetic construct → see item 10
 275 <400> SEQUENCE: 3
 276 agtaggaatc agatagcgag attg
 279 <210> SEQ ID NO: 4
 280 <211> LENGTH: 24
 281 <212> TYPE: DNA
 282 <213> ORGANISM: synthetic construct
 284 <400> SEQUENCE: 4
 285 actgaataat gtaacacagg gctc 24
 288 <210> SEQ ID NO: 5
 289 <211> LENGTH: 20
 290 <212> TYPE: DNA
 291 <213> ORGANISM: synthetic construct
 293 <400> SEQUENCE: 5
 294 tgcgtagtca gagagagagg 20
 297 <210> SEQ ID NO: 6
 298 <211> LENGTH: 21
 299 <212> TYPE: DNA
 300 <213> ORGANISM: synthetic construct
 302 <400> SEQUENCE: 6
 303 agccagcaca gccccaaagc c 21
 306 <210> SEQ ID NO: 7
 307 <211> LENGTH: 21
 308 <212> TYPE: DNA
 309 <213> ORGANISM: synthetic construct

→ see item 10
 on error summary
 sheet. 24

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/647,982

DATE: 09/03/2003

TIME: 10:50:42

Input Set : A:\01313.txt

Output Set: N:\CRF4\09032003\J647982.raw

```

311 <400> SEQUENCE: 7
312 tctatgacga tgggctggag g 21
315 <210> SEQ ID NO: 8
316 <211> LENGTH: 21
317 <212> TYPE: DNA
318 <213> ORGANISM: synthetic construct
320 <400> SEQUENCE: 8
321 atagacgaag ttcaggatac c 21
324 <210> SEQ ID NO: 9
325 <211> LENGTH: 15
326 <212> TYPE: DNA
327 <213> ORGANISM: synthetic construct
329 <400> SEQUENCE: 9
330 cagggttggg aacat 15
333 <210> SEQ ID NO: 10
334 <211> LENGTH: 16
335 <212> TYPE: DNA
336 <213> ORGANISM: synthetic construct
338 <400> SEQUENCE: 10
339 aggttggaac acatta 16
342 <210> SEQ ID NO: 11
343 <211> LENGTH: 20
344 <212> TYPE: DNA
345 <213> ORGANISM: synthetic construct
347 <400> SEQUENCE: 11
348 atccttacta ttacaccct 20
351 <210> SEQ ID NO: 12
352 <211> LENGTH: 18
353 <212> TYPE: DNA
354 <213> ORGANISM: synthetic construct
356 <400> SEQUENCE: 12
357 atgcttactg ttacacc 18
360 <210> SEQ ID NO: 13
361 <211> LENGTH: 19
362 <212> TYPE: DNA
363 <213> ORGANISM: synthetic construct
365 <400> SEQUENCE: 13
366 tgctcttaat ttgataaaa 19
369 <210> SEQ ID NO: 14
370 <211> LENGTH: 19
371 <212> TYPE: DNA
372 <213> ORGANISM: synthetic construct
374 <400> SEQUENCE: 14
375 tgctcttaat ttcataaaa 19
378 <210> SEQ ID NO: 15
379 <211> LENGTH: 20
380 <212> TYPE: DNA
381 <213> ORGANISM: synthetic construct
383 <400> SEQUENCE: 15

```

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 09/03/2003

PATENT APPLICATION: US/10/647,982

TIME: 10:50:43

Input Set : A:\01313.txt

Output Set: N:\CRF4\09032003\J647982.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 194,601,1029,1038,1074,2106,2185,2359,2663,2796

Seq#:2; Xaa Pos. 265,291

VERIFICATION SUMMARY

DATE: 09/03/2003

PATENT APPLICATION: US/10/647,982

TIME: 10:50:43

Input Set : A:\01313.txt

Output Set: N:\CRF4\09032003\J647982.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:180
M:341 Repeated in SeqNo=1
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:256
M:341 Repeated in SeqNo=2